

Date: Monday, 1/8/2007 11:08:46 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : STEP EXTRUSION
Job Number : 30199	
Estimate Number : 10058	
P.O. Number : N/A	Part Number : D2622120C
This Issue : 1/8/2007 S.O. No. : N/A	Drawing Number : D2622 REV C1
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : PURCHASED PARTS	Drawing Revision : C1
Previous Run : 29607	Material : N/A
Written By : _____	Due Date : 2/15/2007 Qty: 110 Um: Each
Checked & Approved By : <u>07.01.08</u>	
Comment : Est. A: 02.11.12 New Issue KJ/RF	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

PG

PURCHASING



## Comment: PURCHASING

Issue P/O: 2832

C207101109

- a) Extrude as per Dwg D2622 Rev. C
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 38 ksi
- e) Minimum elongation = 8%
- f) Order at 120" longg) Bon L Canada Inc. tool # 897123 Rev. A
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

(110)

2.0

D2622120CP

Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total: 110.0000 Each(s)

Extrusion

3.0

PACKAGING 1

PACKAGING RESOURCE #1



## Comment: PACKAGING RESOURCE #1

- Receive & Inspect For Transit Damage
- Ensure material certification is attached

7/1/22 (105)

4.0

QC6

DIMENSIONAL CHECK



## Comment: DIMENSIONAL CHECK

- Inspect dimension per Dwg D2622
- Check Pull test per Dwg D2622 for compliance page attached
- Check hardness with Webster tester

07/02/28 (105)  
 02019

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: AD Date: 07/03/29  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP EXTRUSION

Job Number: 30199

Part Number: D2622120C

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

FF 07-03-28

105

105

6.0

QC21

FINAL INSPECTION/W/O RELEASE



105

Comment: FINAL INSPECTION/W/O RELEASE

07/03/29

Job Completion



07-03-29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

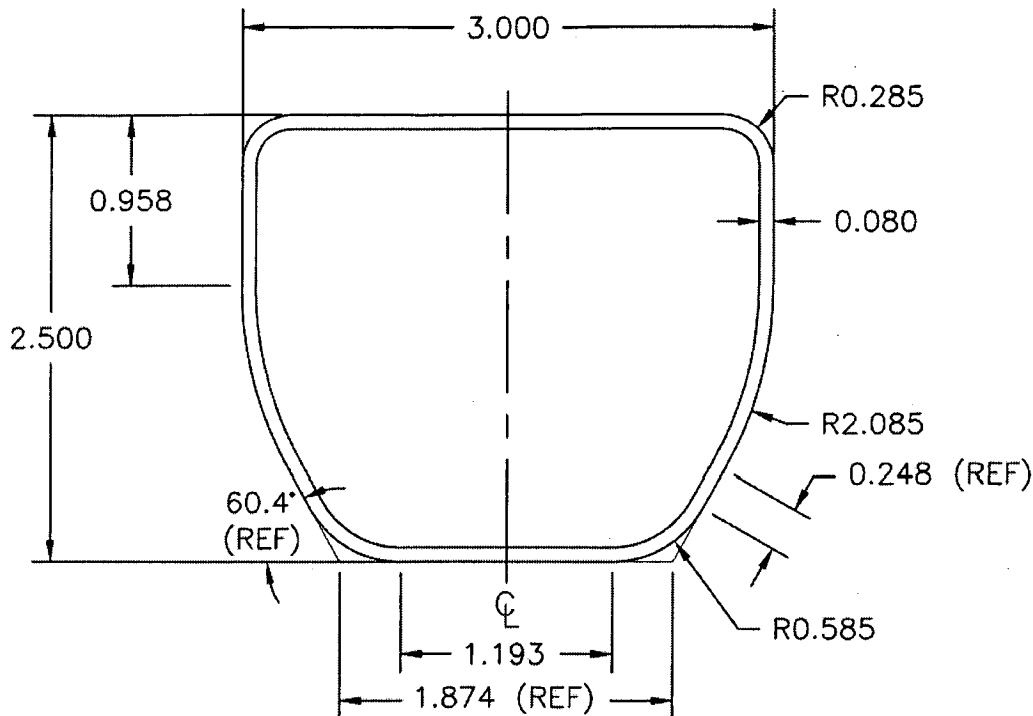
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<del>10/11/2015</del>		<del>Damage to skin</del> Damage to skin						

NOTE: Date & initial all entries




DESIGN	KE	DRAWN BY	UP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	#	APPROVED	#	DRAWING NO. D2622	REV. C SHEET 1 OF 1
DATE	02.09.11			TITLE STEP EXTRUSION	SCALE 1:1
A	96.11.29			NEW ISSUE	
B	97.12.12			CHANGE MATERIAL, ADD TOL. QSI	
C	02.09.11			0.080 WAS 0.085; ADD PART & DIE No.	
CI	#	UP	02.10.04	ADD 'REV. A' TO DIE NUMBER.	

RELEASED  
02.09.11 #



#### D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES (EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 Rev. A 
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

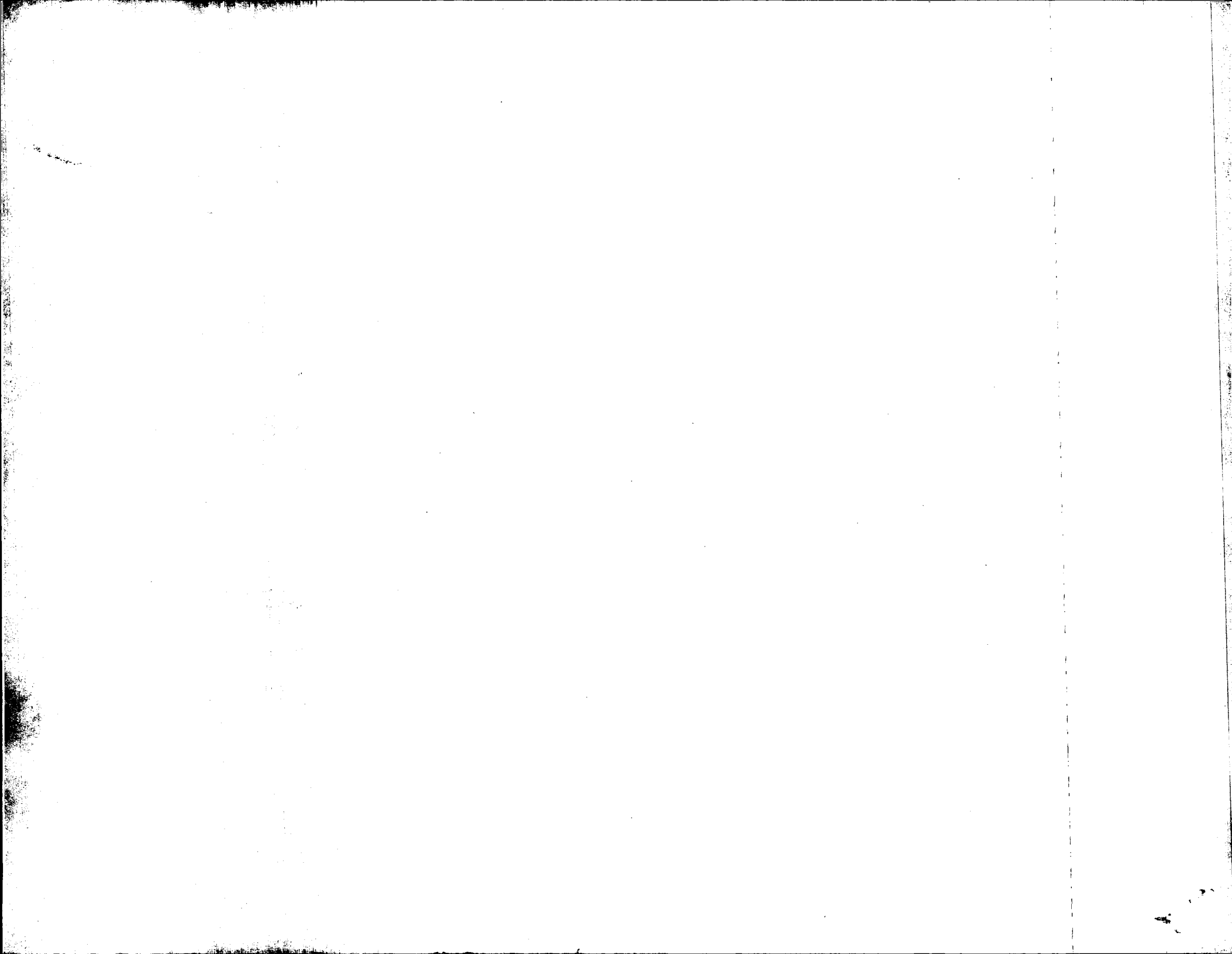
MINIMUM TENSILE YIELD STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi  
MINIMUM ELONGATION = 8%

- 5) PART IS SYMMETRIC ABOUT CENTERLINE
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 30199

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# CERTIFICATE OF COMPLIANCE

**BON L CANADA INC**

500 EDWARD AVENUE  
RICHMOND HILL, ON L4C 4Y9

Cert Date	Cert No	Sales Order	Page
02/21/07	155352	54403	1
Cert No	B/I No	Lot	Date
2832	00335165	54403010	2/21/07

Sold To	Ship To
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7	46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Item No	Part No	Item Description	Cust Part
1.000	DAA-897123-1	120" Mill 6061 T6	D2622
Gross Weight	996 LBS		
Net Qty	904 LB	105 PC	1050 FT 3 PKG
Specification	AMS-QQ-A-200/8 & ASTM B221-00		

Mechanical Tests:						
Test No.	Tensile MPA / KSI	Yield MPA / KSI	%Elongation	Conductivity	Bend/ Drift HREW	
1	319.3 / 46.3	272.4 / 39.5	11.5	.0	96	

Chemical Analysis:												
SI	FE	CU	MN	MG	CR	NI	ZN	GA	V	TI	ZR	OTHER
.59	.23	.19	.08	.84	.05	.000	.03	.000	.000	.02	.000	.00

This will certify that the material described herein has been inspected and tested in accordance with Bon L Canada's standard sampling and testing procedures or in accordance with the requirements of any specifications forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

D. VanBakel, QA Manager Signed for Bon L Canada